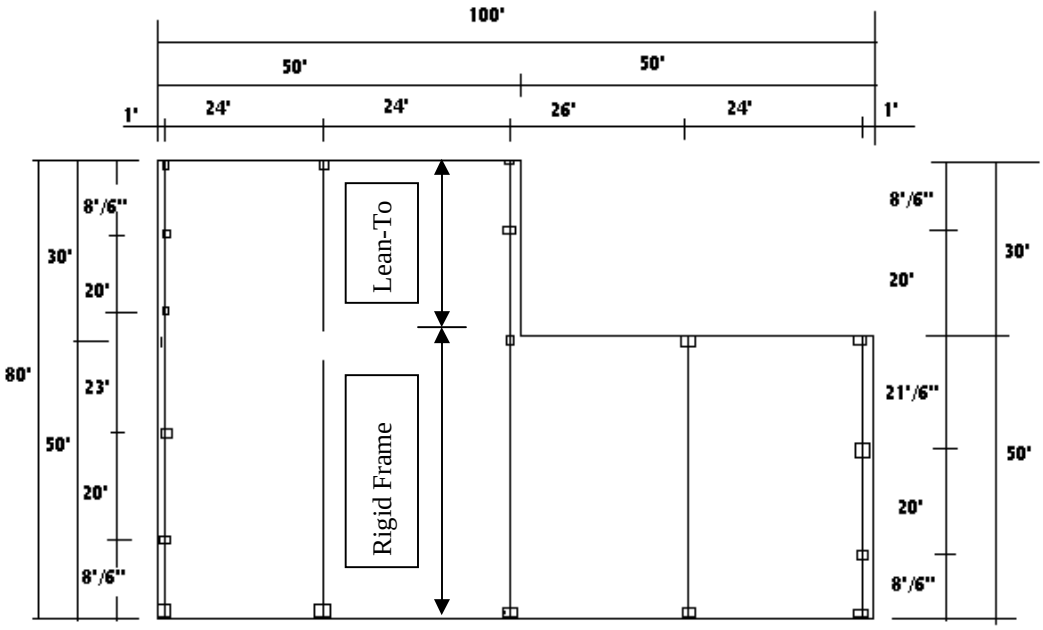
Lesson 6

The Focus of the Lesson is:

- Use other predefined shapes.
- Have Multiple Frames Types at same Frame Line.
- Open a wall for material not by VP.

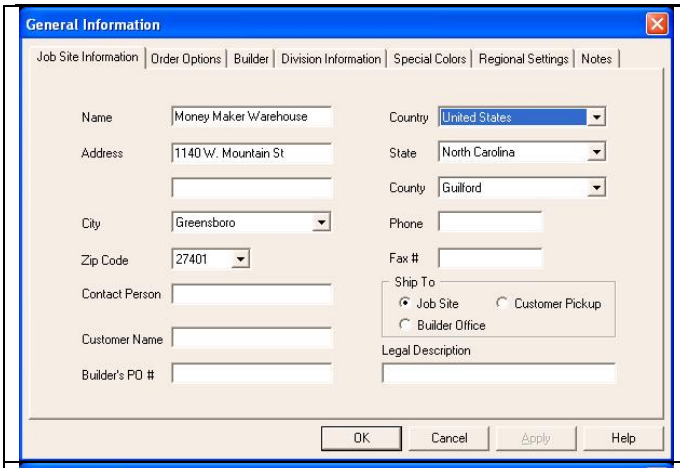
The following pages are actual **VP Command** screens with instruction and explanations. The floor plan to the building you are about to input is shown below.



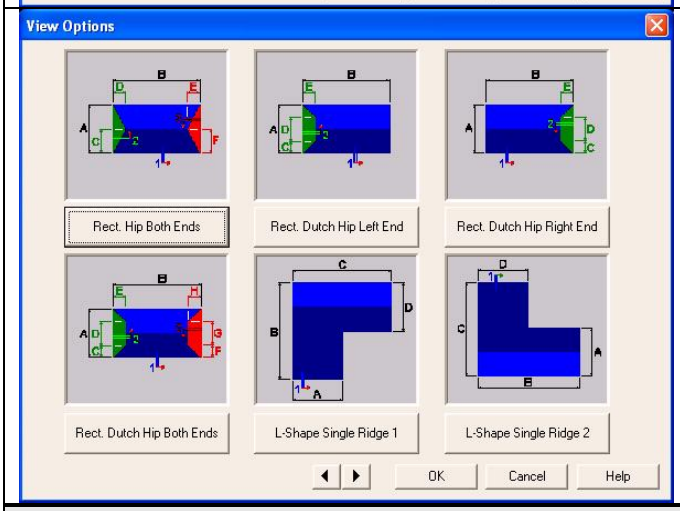
Shape layout:

- Building Width at Left Endwall = 80’-0”
- Building Width at Inside Corner = 50’-0”
- Building Length at Front Sidewall = 100’-0”
- Building Length at Inside Corner = 50’-0”
- 20’ Eave Height at each low side of 80’-0” wide portion of the building.
- 4:12 Slope on all roof surfaces.
- Ridge centered on 80’ endwall.

Lesson 6

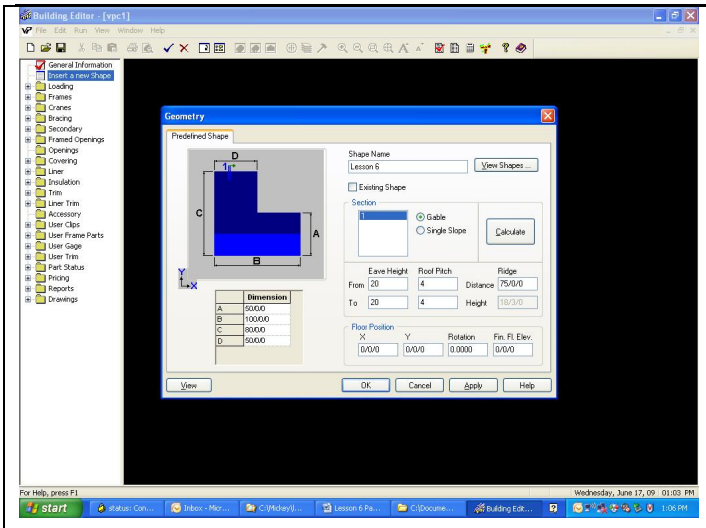


1) Start Building Editor:
   - Click Building Editor Icon on your desk.
   - New / Select a Default File
   - Complete *General Information*

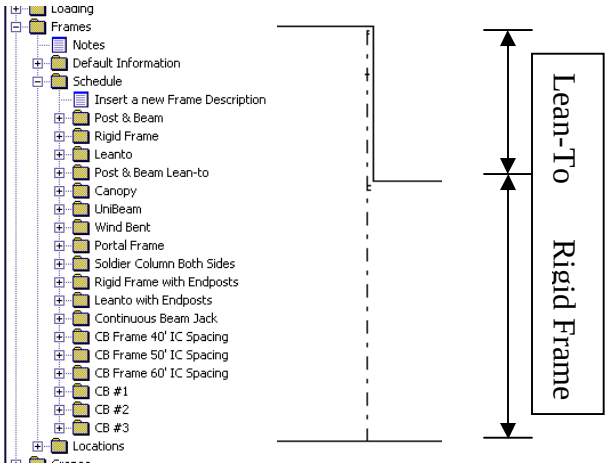


2) Select Insert a New Shape
   - Use Pre Defined Shape
   - Enter Shape name as Warehouse 3.
   - Click *View Shapes* and scroll through to find the shape that closely resembles your desired shape
   - Select L-Shape Single Ridge 2
   - Click *OK*

3) *Shape Selection Tip*: In Lesson 5 the shape was very similar to this one in footprint except that that shape was intended to be used with a lean-to at the back wall. That pre-defined shape is made up of two-pre-defined shaped with a common wall. By default, the common wall is open. Since this common wall exists, VPCommand will stop a frame at the next adjacent wall. In the shape for this lesson (L-shape Single Ridge 2), there is no common wall, thus a frame will run from the wall and stop at the next wall it encounters. Also note that the shape in Lesson 5 will not allow for a high-low building condition. Thus, you need to consider your final desired result before selecting your shape.

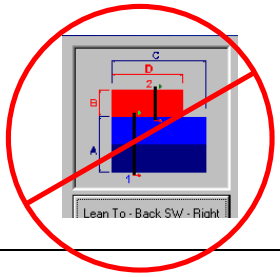


4) Input building dimension as shown on floor plan, pg.1.
   - Define the section using 20'-0" eave heights at both sides and a 4:12 pitch.

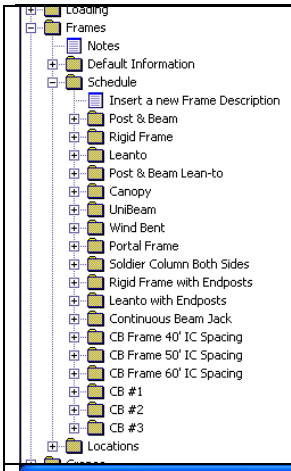


5) Working with Frame Schedule:
   - You will need two frame types along frame line 3. A Rigid Frame spanning the 50'-0 portion and a Lean-To spanning the 30'-0 portion of the building. Remember that before you can locate a frame in your building it must exist in the Schedule. You will need to add these to the *Frames / Schedule* before locating them.

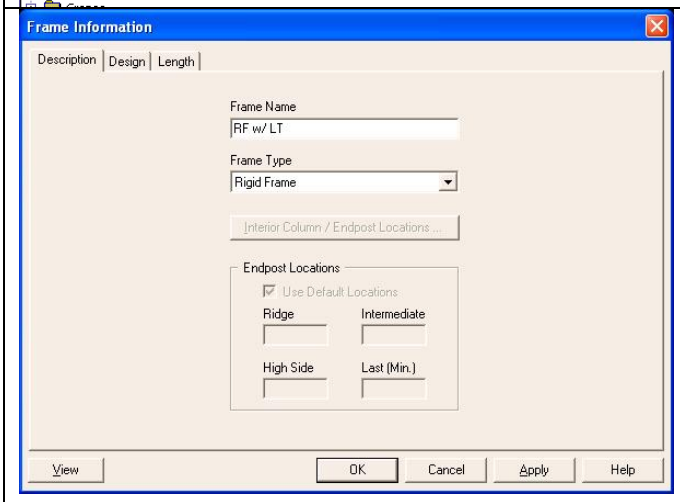
6) Frames / Locations
   - Whenever a frame is located in your building shape at the "Frame / Locations" window it will extend from the "*Along*" wall to an opposite wall.
   - There may be occasions when you will have the need for a frame that does not extend from a wall to a wall. This is termed a "*Partial Length Frame.*
7) Before we begin, there are a few items that you should know concerning *any* frame, not just partial length frames. These are as follows:
   - A frame must exist in the *Frames/Schedule* before it can be located in your Building shape
   - A frame will take its "*offset*" (distance from building line to outside column flange) from the wall the frame starts or ends at.



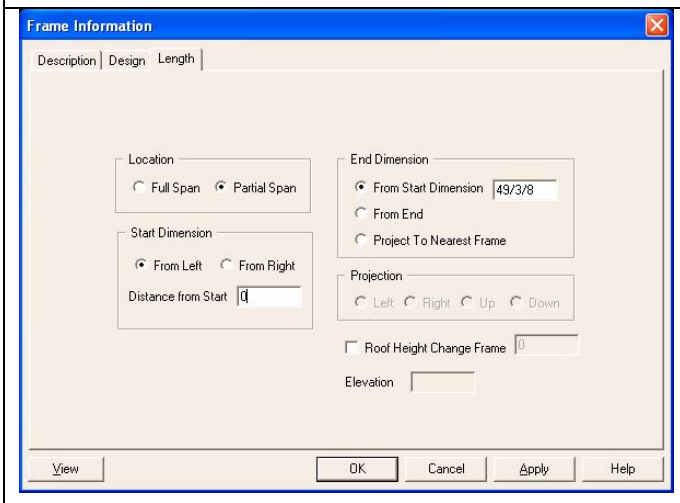
8) Note: Frames will stop at a common wall condition. Make sure you have chosen the correct shape.



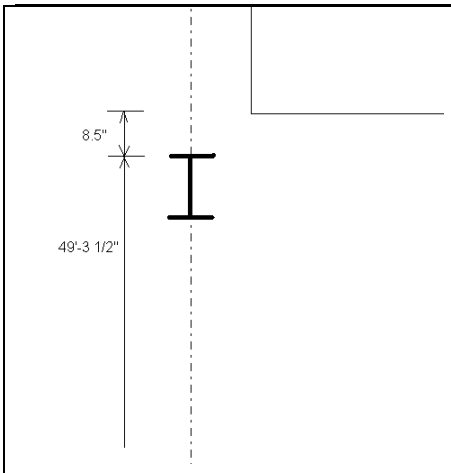
9) Now that we know where our frame is to be located and the frame type we should use, we can begin to *create* this frame in the *Frames/Schedule* as follows:
10) From the Tree, Open the *Frames / Schedule* folder.
11) Double-click the "*Insert a new Frame Description*" file to bring up the *Frame Information* window.



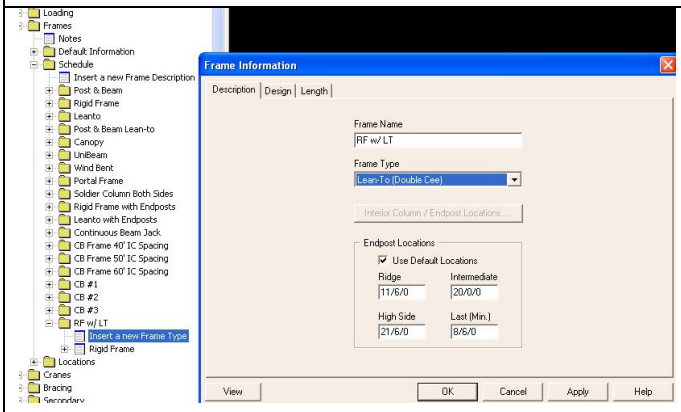
12) At the *Frame Name* field, type in a name for this frame. Note that this can be anything, but it is best to a descriptive term. This name will then identify the frame in the Schedule and will later be found in the Frame Locations selection window, as well as on the Reports. In this example, use "*RF with LT*"
13) Make sure that *Rigid Frame* is selected in the *Frame Type* window.
14) Click on the *Length* tab to identify the parameters of the Rigid Frame.

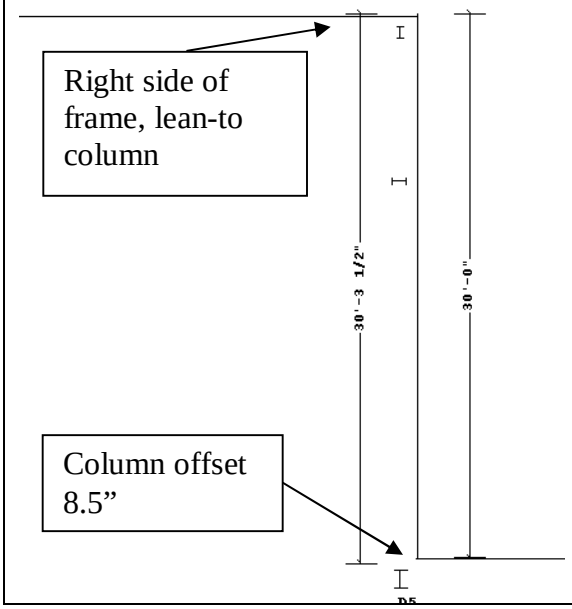


15) Select *Partial Span* at the *Location* field. This will allow you to specify the span of the frame.
16) At the *Start Dimension* field, select *From Left* (which is at the Along Wall) and input a *Distance from Start* of *0 (zero)*. The Frame Offset will be taken from the Secondary information
17) At the *End Dimension*, Select *From Start Dimension* and input a value of *49'-3 ½"*. This will place the Outside flange of the column at this location from the along wall.

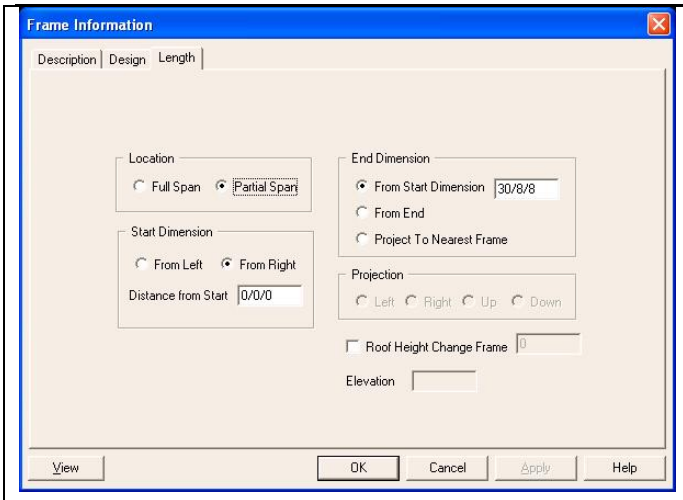


18) This *dimension* was arrived by taking 50 feet minus the secondary offset of 8 ½". *Note* that this frame does not stop at a wall; therefore it does not know what offset to use. The girt from the sidewall will attach at this frame. See Sketch at left.
19) Select *OK* to accept your input.

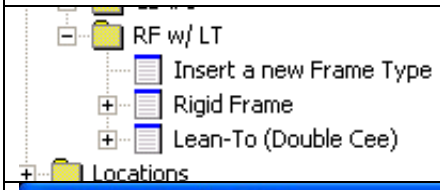




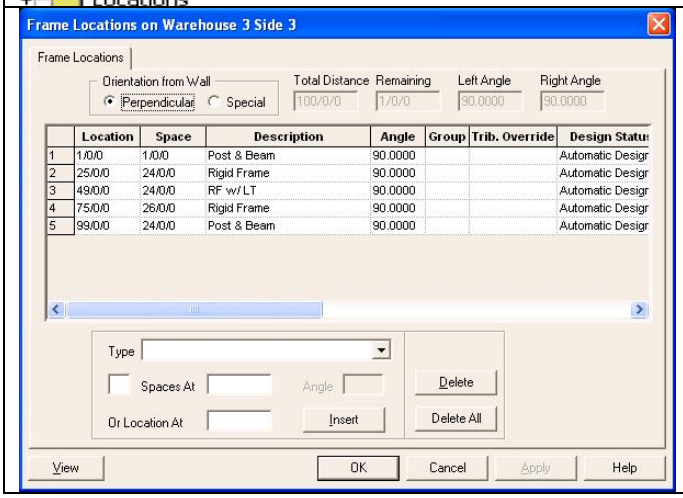
20) Hit the "*F5*" key to "*Refresh*" the Tree.
21) From the Tree, open the *Frames / Schedule / RF with LT* folder.
22) *Double-click* the *Insert a new Frame Type* file to add the Lean-To frame into this newly created folder.
23) At the Frame Information window, Select *Lean-to (Double Cee)* at the *Frame Type* Window. This will give us a post and beam lean-to as this portion of the frame will be at an endwall.
24) Note that *you do not change the Frame Name.* This only identifies the name of the folder in the tree.
25) Click on the Length tab to define the parameters of the Lean-To frame.
26) You will define the *Partial Length Lean-to frame* as describe in the sketch at left.



27) Select *Partial Span* at the *Location* field.
28) Select *From Right* at the *Start Dimension* field. Remember that the Right side of the frame is the wall opposite the Along wall.
29) Input *0* (zero) as the *Distance from Start*. As with the Rigid Frame, the Lean-to column flange offset will be as defined in the Secondary screen of this wall.
30) Select *From Start Dimension* at the *End Dimension* field.
31) Input *30'-8 ½"* in the End Dimension field. This dimension is calculated as 30 feet plus 8 ½" to extend the rafter to meet the rigid frame.
32) Click on *OK* to accept your input.



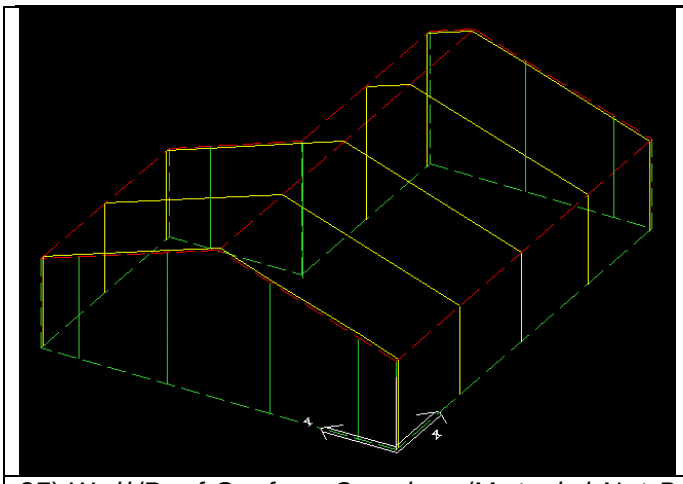
33) Looking in the *Frame / Schedule* will show your new frame. You may now locate this frame in your shape.



34) Frame Locations

- Enter frame locations at required spacing per drawing on *page 1*.
- Remember that you created your new *RF with Lean-to* frame based upon using the front wall (*Wall 3*) as the along wall.

35) If your frame list looks like this click OK.

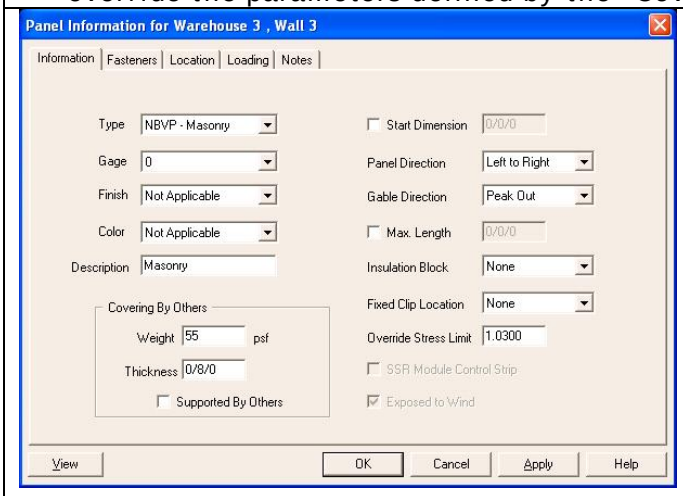


36) After locating *Frames* and clicking *OK* your screen should look like this.

37) *Wall/Roof Surface Openings/Material Not By VP Buildings*:

- There are numerous occasions where you wish part or all of a building surface (wall or roof) to contain a material that VP Buildings does not provide, such as brick, glass, etc.
- There are also times when you simply wish to remove material to allow for complete access, such as for a lumber storage building

38) Note that you should NEVER use the "Openings" folder unless you are going to override the parameters defined by the "Covering Types".



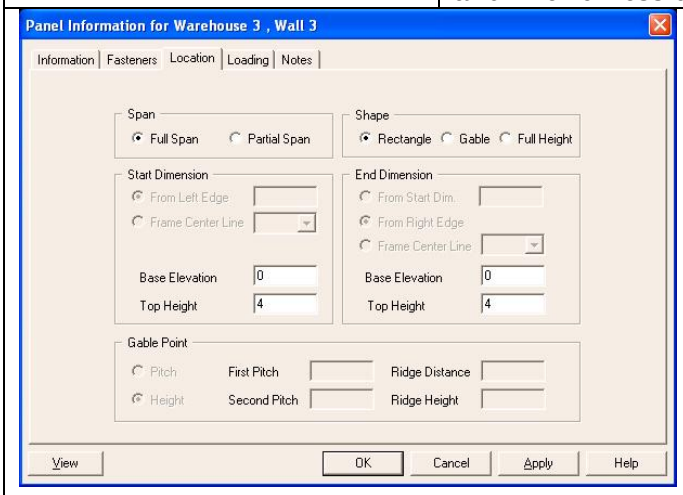
39) To open wall for material by others: Covering / Default Information / Warehouse 3 / Wall 3. Double-click the file for *Insert a new Covering Definition*

40) Complete the *Information* tab as required for your Panel Type. NBVP-Masonry for this example.

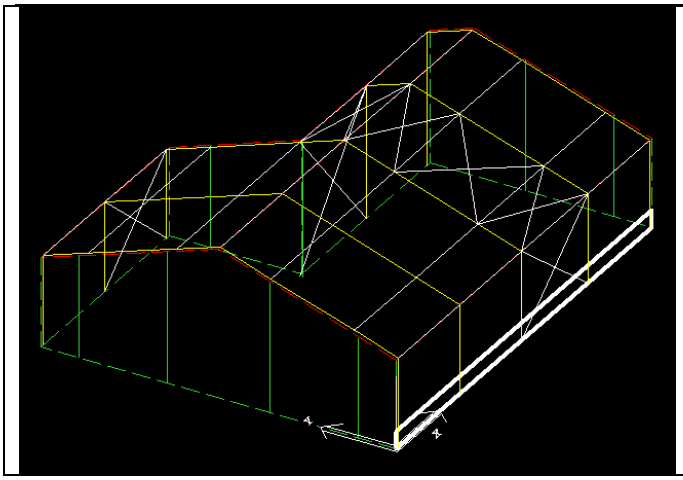
41) You may input a *Description* if you wish.

42) Note: If the *Supported By Others* box is *not checked*, you must provide VP Buildings with additional information pertaining to the support of the material NBVP, such as support member deflection limitations, etc.

Covering Type Selection	Results
Panel Rib	*Leaves* sheeting, secondary, insulation, and/or liner unless removed elsewhere.
Vee Rib	*Leaves* sheeting, secondary, insulation, and/or liner unless removed elsewhere.
Open	*Removes* all material; sheeting, secondary, insulation, and liner unless defined elsewhere and applies loading as if that portion is open for wind access.
Not by VP - Masonry	*Removes* sheeting, secondary, and insulation, unless defined differently elsewhere and applies loading as if that portion is covered. If this type is selected and "Supported by Others" is NOT selected, you must provide VP Buildings with additional information regarding the material type.
Not by VP – Tilt Wall	*Removes* sheeting, secondary, and insulation unless defined differently elsewhere and applies loading as if that portion is covered. If this type is selected and "Supported by Others" is NOT selected, you must provide VP Buildings with additional information regarding the material type.
Not by VP - Panel	*Removes* covering and *leaves* secondary, insulation, and liner unless defined differently elsewhere.
Not by VP - Other	*Removes* covering and *leaves* secondary, insulation, and liner unless defined differently elsewhere.



- *Location Tab:* This is used for locating your different panel type. The new covering definition will be assumed for the entire wall surface unless defined otherwise. If this is the desired result, you should change the *Main* covering definition for the wall instead of inserting a *New* covering definition.
- As you face the selected wall surface from *outside* your shape, the *Start* dimension is on your left and the *End* dimension is on your right.
- *Zero* is assumed as the base elevation if no value is input.
- *OK* the window to accept your input



43) To *view* the new covering definition:
- Open the Covering / Default Information / Warehouse 3 / Wall 3 folder and click on the *covering definition.*
- Your covering definition will be highlighted as shown for reference.

44) Save and run the job as required.